

seriously because Ameritech nowhere states what the rate for EOI will be or whether EOI is available throughout its territory. More fundamentally, Ameritech would be the exclusive judge of what is economical. It is clear, moreover, that whatever rate Ameritech would decide to set for EOI would be extortionate, for that rate is bound to be higher than the minute-of-use rate that Ameritech does provide for CLECs whose market entry has progressed beyond the need for EOI and whose high volumes have justified deployment of a network of dedicated transport. The purportedly “very modest” rate of \$.0071417 per minute-of-use that those CLECs would incur for dedicated transport (Ameritech at 98; *see* Attachment C at pp. 3-6), is in reality *over five times* higher than the rate for shared transport of \$.00134 per minute set by the Illinois Commerce Commission.²³⁵ And that dramatic difference – which alone would prohibit CLECs from serving the mass market – does not reflect (1) the higher minute-of-use rate that Ameritech would impose for the transport function between the unbundled switch and the tandem provided by EOI; (2) the transport and termination charges that Ameritech would levy on top of the EOI charge; and (3) the non-recurring charges that Ameritech would impose for establishing the customized routing that EOI requires. *See* Ameritech Attachment C at page 1.

Furthermore, even if EOI were made available at cost-based rates determined or approved by regulators, EOI would not be the functional equivalent of shared transport. With shared transport, a CLEC’s calls are routed efficiently over the same network of transport and switches that the incumbent LEC uses to route its own customers’ calls. With EOI, a CLEC is denied

²³⁵ Illinois Commerce Commission, Amendatory Order, Nos. 96-0486, 96-0569 (April 6, 1998).

access to that existing transport, and is relegated instead to trunk groups that Ameritech deploys exclusively for the use of CLECs who subscribe to EOI.²³⁶ As a result, EOI fails to provide CLECs with essential benefits that shared transport provides, and it imposes new burdens that independently would impair CLECs' ability to offer a viable competitive alternative.

In this regard, Ameritech is starkly wrong when it claims (at 99) that EOI's "minute-of-use" rate structure addresses the problems "that led the Commission to conclude in the *Third Order On Reconsideration* that failure to gain access to shared transport would impair new entrants' ability to enter the local marketplace." As the Commission recognized, one of the fundamental barriers to entry into the local market is the new entrants' inability accurately to anticipate in advance how fast it will grow, where its customers will be located, and what their traffic patterns and volumes will be.²³⁷ Shared transport overcomes this barrier because it gives CLECs access to the entire incumbent LEC transport network (both direct trunks and tandem routing) to ensure that all calls are efficiently routed.

EOI, in contrast, perpetuates the problem. Using EOI requires the CLEC to forecast for the incumbent, in advance of market entry, the transport capacity that the CLEC estimates its future customers will need, so that the incumbent LEC can determine how many trunks to provision. If the CLEC underestimates capacity, it cannot rely (as it could with shared transport)

²³⁶ With EOI, "CLECs are not required to order dedicated facilities" Ameritech at 99. They are, however, required to "custom route onto the EOI Trunk(s) using routing instructions provided by the CLEC." Ameritech Attachment C, p. 1, scenarios 1 and 2. Thus, Ameritech will deploy the facilities for EOI, but CLECs must custom route to them, and thus are limited to them. There is no overflow onto Ameritech's network.

²³⁷ See, e.g., *Shared Transport Order* ¶ 35.

on the capacity of the incumbent's transport network to complete its customers' calls. Instead, the CLEC's traffic can flow only over the CLEC-dedicated EOI facilities, and if those capacity limits are exceeded the CLEC's customers' calls will be blocked. In that event, the fact that Ameritech presumably would not impose any "minute-of-use" charges for the blocked calls would be cold comfort indeed for the CLEC and its customers alike.

Worse still, the CLEC's customers' calls may be blocked with EOI even if the CLEC has accurately estimated its own demand. That is because with EOI, a CLEC's traffic is commingled with other CLECs' traffic on the trunk groups that Ameritech has dedicated to CLEC-only use.²³⁸ As a result, if *other* CLECs have underestimated demand, or if *Ameritech* has miscalculated the dedicated capacity that the CLECs collectively need, then the excessive traffic on the EOI circuits will cause the customers of all the CLECs sharing those circuits to experience call-blocking. In this respect, EOI is an unacceptable substitute not only for shared transport, but for dedicated transport as well, for with EOI a CLEC is vulnerable to serious service-quality problems that are solely the making of other carriers.

These defects alone render EOI unusable for mass-market entry, but they are not the only problems. As presented in the Ameritech filing, for example, EOI appears to route all CLEC

²³⁸ It is evident from the figure on page 1 of Attachment C that Ameritech intends with EOI to have multiple CLECs route traffic over a common set of CLEC-only trunks shared by the CLECs, rather than to have each CLEC route over its own unique trunks that Ameritech has set aside for the exclusive use of that CLEC. That figure distinguishes "EOI" from "CLEC Transport," and there would be no reason for a CLEC to move from "EOI" to "CLEC Transport" if, with EOI, the CLEC already had access to facilities dedicated to its exclusive use. *See also* Ameritech at 99 (referring to CLECs using "circuits" that are "shared with other competitors").

traffic from a given unbundled switch to a particular tandem, creating a single point of failure for all CLECs that – in the event of switch failure – would uniquely destroy the CLECs' ability to provide service while leaving Ameritech able to use alternative routing. And by routing all CLEC traffic through a tandem, EOI denies CLECs the efficiency and lower cost of direct routing between end offices that routing the vast majority of calls over shared transport would provide.

Moreover, EOI is premised on the assumption that the incumbent LEC can accurately provide the customized routing that CLECs would need – something that neither Ameritech nor most other incumbent LECs has yet shown they can do accurately and promptly, either for numerous CLECs or in significant volumes.

Finally, Ameritech's conclusion (at 100) that providing CLECs access to shared transport would mean "there would be no innovation, no quality differentiation, and thus no real competition or benefits to consumers" starkly reveals Ameritech's failure to understand (or accept) the central purpose of this vital network element. Simply put, access to shared transport is essential to both competition and innovation. Without access to shared transport, new entrants will not have an opportunity to establish a significant market presence, gather data on customer calling patterns and volumes, and then design an efficient transport network that will be different in quality from the incumbent's. Thus, lack of unbundled access to shared transport will simply perpetuate the incumbent's mass-market monopoly – the most anticompetitive, innovation-deadening result of all.

E. Interoffice Dedicated Transport

The overwhelming majority of commenters agree with AT&T that the unavailability of unbundled dedicated interoffice transport would significantly impair CLECs' ability to offer local service using their own facilities.²³⁹ Specifically, the majority of commenters show that the only potential alternatives – self-provision and third-party vendors – would impose excessive costs and delays on CLECs, and limit their addressable customer base. The record also convincingly shows that dedicated transport made available through existing incumbent LEC interstate access tariffs is immaterial to the Section 251(d)(2) analysis, and that, in any event, the rates imposed by those tariffs would impair CLECs' ability to provide service.

The incumbent LECs nonetheless claim that CLECs' ability to provide service will not be impaired if incumbent LECs are not required to unbundle dedicated interoffice transport to and from "dense" wire centers.²⁴⁰ In their view, "CLECs operating in these markets can secure [sufficient] interoffice transport from many [alternative] sources," including self-provision, third-party vendors, and the incumbent LECs' special access tariffs.²⁴¹ As proof of the alleged

²³⁹ See, e.g., Ad Hoc at 11; Allegiance at 18-19; ALTS at 49-56; AT&T at 111-25; C&W at 37-38; Choice One at 17-18; Columbia at 7; CompTel at 42; Connecticut PUC at 4; CoreComm at 28-29; CPI at 22-27; Covad at 43-50; e.spire at 24-26; Excel at 11-12; Florida PSC at 7 (rebuttable presumption); GSA at 4-6; Illinois Commerce Commission at 12-13; Iowa Utils. Bd. at 6; Joint Consumer Advocates at 4; Kentucky PSC at 2; KMC at 14-15; Level 3 at 22; MCI WorldCom at 62-67; McLeod at 6; MGC at 21-26; Metro One at 5; Net2000 at 14; Network Access Solutions at 16-19; New York DPS at 3 (rebuttable presumption); NorthPoint at 19-20; Prism at 17-20; Qwest at 73-78; RCN at 17-18; Rhythms Netconnections at 18-20; Sprint at 31-34; Texas PUC ¶ 27; TRA at 38-41; Waller Creek at 6-7.

²⁴⁰ See, e.g., Ameritech at 88, 94; Bell Atlantic at 31; GTE at 62-63; SBC at 49-51; U S WEST at 50-51.

²⁴¹ GTE at 60-62; see also, e.g., Ameritech at 88-93; BellSouth at 50-53; SBC at 45-51; U S WEST at 48-51.

sufficiency of these “alternatives,” the incumbent LECs rely on those specific instances in which CLECs already have made *limited* use of them.²⁴²

The incumbent LECs’ position is fatally flawed for several reasons. First, nothing in the incumbent LECs’ comments counters the record evidence showing that self-provision of dedicated interoffice transport involves a costly and time consuming process, or that self-provision is infeasible in some circumstances due to limitations on collocation space and right-of-way capacity. Instead, the incumbent LECs effectively urge the Commission simply to ignore these problems.²⁴³ The incumbent LECs also erroneously assume that because CLECs have used self-provisioning to pursue facilities-based competition in specific and limited circumstances, they can use self-provisioning to compete for high volume customers on a broader scale. As Professors Hubbard, Lehr, Ordovery, and Willig explain (Aff. ¶¶ 35-38), that is not the case.

Second, the incumbent LECs falsely claim that the limited amount of currently available CLEC and third-party dedicated interoffice transport is sufficient to meet CLEC needs.²⁴⁴ Contrary to the incumbent LECs’ assertions, the mere presence of *some* CLEC fiber in a “dense” wire center does not imply that *sufficient* dedicated interoffice transport is available to and from

²⁴² See, e.g., Ameritech at 88-93; Bell Atlantic at 26-31; BellSouth at 50-52; SBC at 45-46; U S WEST at 48-49.

²⁴³ See, e.g., U S WEST at 22-23 (“delays inherent in . . . self-provisioning an element . . . cannot justify mandatory unbundling”); SBC at 8 (“[t]he proper focus is not on . . . whether obtaining the element from another source places the CLEC at a cost disadvantage”); Bell Atlantic at 14-15 (“[t]he real issue is whether the competitor *can* offer a competitive service using its own element” not “whether the incumbent has a particular cost advantage”) (emphasis added).

²⁴⁴ See *infra* p. 129 & n.265 (showing that even if the incumbent LECs’ data are taken at face value, only 11% of all available fiber is owned by CLECs and third parties).

all of the *specific places* where CLECs may need it. In fact, CLECs are totally dependent on incumbent LECs for the vast majority of their point-to-point transport needs – even in “dense” wire centers.

Third, the incumbent LECs do not – and, as a matter of law, cannot – show that the availability of special access tariffs is relevant to the Commission’s unbundling determinations. Moreover, they have not refuted – and cannot refute – CLEC evidence that the rates imposed by such tariffs would impair CLECs’ ability to offer competing service.

1. The Record Confirms That Self-Provision Is Not A Sufficient Alternative To Unbundled Dedicated Interoffice Transport.

The record confirms AT&T’s demonstration that self-provision of dedicated interoffice transport is not a sufficient alternative to unbundled dedicated interoffice transport.²⁴⁵ Specifically, the record shows that self-provision is infeasible in some circumstances due to limitations on collocation space and right-of-way capacity, and in any event involves a time consuming and costly four-step process requiring a CLEC to: (i) negotiate a right-of-way agreement with the appropriate local municipality; (ii) obtain existing right-of-way capacity from incumbent LECs or other parties or develop new capacity; (iii) obtain the necessary collocation space and prepare that space to support interoffice transmission facilities; and (iv) purchase dedicated transport equipment and then deploy, test, and activate that equipment.²⁴⁶ The record

²⁴⁵ See AT&T at 114-21; *see also, e.g.*, Allegiance at 19; ALTS at 49-56; Covad at 46-47; CPI at 25; KMC at 14-15; e.spire at 24-25; Level 3 at 22; MCI WorldCom at 64-67; MGC at 21-23; Network Access Solutions at 17; NorthPoint at 19-20; RCN at 17.

²⁴⁶ See sources cited *supra* note 245.

also shows that these costs and delays impair CLECs' ability to compete effectively against incumbents LECs because incumbents typically can avoid these problems by virtue of their historic monopolies.²⁴⁷

Nothing in the incumbent LECs' comments counters the record evidence showing that self-provision of dedicated interoffice transport involves a costly and time consuming process, or that self-provision is infeasible in some circumstances due to limitations on collocation space and right-of-way capacity.²⁴⁸ Instead, the affidavits and studies on which the incumbent LECs rely merely provide an inventory of the CLEC fiber that theoretically might be available in "dense" wire centers.²⁴⁹ They do not – and cannot – show that, going forward, CLECs will find it financially justifiable to incur the delays and expenses associated with self-provision of dedicated interoffice transport on a broader basis. Indeed, the incumbent LECs' own sources confirm that self-deployment has proceeded very slowly, and that self-provision requires CLECs to incur significant costs.²⁵⁰ And, as AT&T showed in its comments, these costs and delays are *increasing*

²⁴⁷ See, e.g., AT&T at 115-16, Ex. A ¶ 7.

²⁴⁸ The incumbent LECs simply claim that such excessive costs and delays are effectively irrelevant under the Act's "impair" standard. As shown above, these delays and costs are not irrelevant to the "impair" standard, but instead are vivid examples of the impairments CLECs face in the absence of unbundled dedicated interoffice transport. See *supra* pp. 43-47.

²⁴⁹ See, e.g., Huber Submission, sec. II; GTE at Ex. B, pp. 22-33 (Network Engineering Consultants, Inc.'s "Analysis of Alternative Network Elements Available to CLECs"); Ex. C (Decl. of Dr. R. Dean Foreman) *passim*; Bell Atlantic, Decl. of Dr. Charles L. Jackson at 11-18.

²⁵⁰ For example, the incumbent LECs claim that the dedicated interoffice transport market has been "open to competition" "[s]ince at least the early 1980s," U S WEST at 48, but also show that CLECs have deployed only 11 percent of the total available fiber to date – some fourteen to nineteen years later, BellSouth at 51. The incumbent LECs' sources also show that the cost of a one hundred mile fiber ring is close to \$3 million, GTE at Ex. B, p. 32; that the "sheer costs of
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as more and more local municipalities adopt local ordinances requiring CLECs to obtain franchise agreements.²⁵¹

Consequently, the incumbent LECs are forced to argue that all CLECs “can” self-provision in “dense” wire centers because historically some CLECs have done so in limited circumstances.²⁵² As Professors Hubbard, Lehr, Ordovery, and Willig explain (Aff. ¶¶ 35-38), however, it simply is not possible to infer the viability of competing more broadly through self-provisioned network elements from the existence of limited facilities-based competition. In some specific and limited circumstances, CLECs can justify serving high volume customers using self-provided interoffice dedicated transport because incumbent LECs currently charge their retail customers supracompetitive rates that create a “price umbrella.”²⁵³ Even still, CLECs recognize that incumbent LECs could drop their retail prices at any time, thereby making competition

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revving up new fiber” already deployed – *i.e.*, lighting dark fiber – is in the billions of dollars, *see* Tom Mack, *Fiber Frenzy*, *Forbes*, Apr. 19, 1999 (cited by SBC at 48 n.86); and that CLECs have required market capitalizations of billions of dollars in order to finance their current network buildouts, GTE at 36.

²⁵¹ *See* AT&T at Ex. A ¶¶ 8-31.

²⁵² *See, e.g.*, SBC at 45 (“the most probative evidence of what CLECs *can* do is evidence of what CLECs are *actually* doing”) (emphasis in original); *see also, e.g.*, Ameritech at 88-91; Bell Atlantic at 26-31; BellSouth at 50-53; U S WEST at 48-49; *id.* at 52 (“evidence of competitive entry is a sufficient . . . condition for the elimination of unbundling requirements”).

²⁵³ It is possible that in some cases and under some conditions, CLECs may have a particular technology or expertise sufficient to overcome the incumbent LEC’s entrenched position with respect to a customer or customers. Nevertheless, because the incumbent LEC’s scale economies are so large, such conditions are likely to be comparatively rare.

without unbundled network elements economically infeasible.²⁵⁴ In those relatively few cases where the obstacles to self-provisioning discussed above are at a minimum and the potential revenue from a particular serving area is especially high, aggressive CLECs may find it acceptable to run the risk of self-deploying dedicated interoffice transport in the face of a potentially ephemeral price umbrella. In the vast majority of cases, however, the difficulties, delays, and excessive costs associated with self-provisioning will preclude rational CLECs from assuming the risk of entry and collapsing pricing unless unbundled dedicated transport is available.

This is especially true when CLECs intend to (or must) rely on their own OS/DA services. Self-provisioned OS/DA requires customized routing²⁵⁵ and therefore requires dedicated interoffice transport between many incumbent LEC end offices and the CLECs' alternative OS/DA platforms. At end offices where CLEC traffic volumes are relatively low, unbundled dedicated interoffice transport rates already may be too high in some instances to justify offering service. When the additional costs of self-provisioning are added, the CLECs' lack of scale economies at those end offices, coupled with the significant risk that the incumbent LEC will collapse the price umbrella, could preclude altogether CLECs from offering services out of those

²⁵⁴ See Hubbard/Lehr/Willig Affidavit, AT&T at Ex. C, ¶ 18 ("If a firm has higher costs than its rivals, the natural competitive process inevitably will propel prices below the costs of the high-cost firm, forcing it to exit the market. Moreover, a rational CLEC will anticipate this outcome of the competitive process and, if it knows it would have higher costs than the incumbent LEC in a particular market, it simply will choose not to commit its liquid capital to enter that market in the first place.").

²⁵⁵ See *infra* at pp. 137-38.

wire centers unless they can lease unbundled interoffice dedicated transport and realize the incumbent LEC's scale economies.

Accordingly, the fact that some CLECs serve a selected set of customers through self-provisioning today is hardly evidence that they could likewise serve customers on a broader basis. The excessive costs and delays that self-provisioning imposes on CLECs will continue to create substantial obstacles to, and limitations on, the development of broader competition if unbundled interoffice transport is not made available.²⁵⁶

2. The Record Confirms That Third-Party Vendors Are Not A Sufficient Alternative To Unbundled Dedicated Interoffice Transport.

The record also convincingly demonstrates that dedicated interoffice transport from third-party vendors does not provide a sufficient alternative to unbundled dedicated interoffice transport due to its highly limited availability.²⁵⁷ For example, Sprint (at 32-33) confirms that

²⁵⁶ The incumbent LECs also claim that the sufficiency of potential alternatives such as self-provision is evidenced by the alleged fact that CLECs have made infrequent use of unbundled dedicated interoffice transport. *See, e.g.,* GTE at 61-62. This claim is incorrect. As an initial matter, the incumbent LECs' own data show that CLECs *have* made significant use of unbundled dedicated interoffice transport, even though such transport has been available only recently. *See, e.g.,* SBC at 46 (conceding that CLECs have purchased unbundled dedicated interoffice transport in 37 of its wire centers). Furthermore, to the extent that CLECs have elected to use potential alternatives, they have done so because unbundled dedicated transport has been made available only recently, and the regulatory environment has been marked by great uncertainty regarding the rates, terms, conditions, and processes under which unbundled dedicated interoffice transport would be made available. By contrast, CLECs for many years have had internal processes in place for analyzing and ordering special access, and thus rationally have used this regime to pursue specific and limited opportunities while waiting for the regulatory environment to settle.

²⁵⁷ *See, e.g.,* Ad Hoc at 11; Allegiance at 18; ALTS at 49-56; AT&T at 121-23; Choice One at 17; CompTel at 42; CoreComm at 28-29; Covad at 43-50; CPI at 25; e.spire at 25; KMC at 14-15; Level 3 at 22; MCI WorldCom at 64-67; MGC at 23-24; Network Access Solutions at 17-18; NorthPoint at 19-20; RCN at 17; Qwest at 73-78; Rhythms Netconnections at 19-20; Sprint at 32-34; Waller Creek at 14-15. The commenters also show that the absence of third-

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third-party vendors do not provide a sufficient alternative because “in all [locations] but New York, the [alternative providers] were not collocated in enough [incumbent LEC] offices to make it practical to use them for *any* [dedicated interoffice transport].” (emphasis added). MCI WorldCom concurs (at 64), stating that “in the *vast majority* of cases in which competitors might need dedicated transport, the [incumbent LEC] is the *only source* for that transport.” (emphasis added).

The only support incumbent LECs offer for their claim that third parties provide an adequate alternative to unbundled dedicated interoffice transport is to note that some third-party transport exists in some places.²⁵⁸ In this regard, they claim that a “fiber optic revolution” is occurring in the United States and that alternatives are “widely available on a competitive basis.”²⁵⁹ To support the existence of this so-called “fiber-building frenzy,” they allege, *inter alia*, that “[s]ixty CLECs have constructed fiber networks since 1996, and total CLEC fiber deployment already includes over 50,000 route miles serving over 250 cities.”²⁶⁰

The incumbent LECs’ argument is both misleading and baseless for several reasons. First, the incumbent LECs’ own data, when viewed in context, refute their argument. Second, the

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party unbundling obligations under Section 251, and the delays that often arise during negotiations with third parties, also undermine the CLECs’ ability to rely on dedicated interoffice transport from third parties. *See, e.g.*, AT&T at 123; MGC at 22-24; Sprint at 33-34.

²⁵⁸ *See, e.g.*, Ameritech at 88-91; Bell Atlantic at 30-31; BellSouth at 51-53; GTE at 61; SBC at 45-49; U S WEST at 48-49.

²⁵⁹ *See, e.g.*, U S WEST at 48.

²⁶⁰ *See, e.g.*, U S WEST at 49; SBC at 48.

incumbent LECs erroneously assume that an entire wire center area is competitive merely because *some* CLEC fiber serves that wire center. Third, the incumbent LECs erroneously assume that a wire center is competitive for all CLECs even if only *one* CLEC has fiber serving that area.

Data. The incumbent LECs' data are insignificant when viewed in context, and their rhetoric is refuted by the very data on which they purport to rely. As an initial matter, the incumbent LECs' analysis is based on mistaken assumptions. For example, the incumbent LECs' central premise is that the existence of CLEC collocation arrangements implies that competitive fiber is available, which in turn implies a reduced need for unbundled dedicated interoffice transport.²⁶¹ This premise, however, is squarely refuted by Covad (at 44-45), which shows that increasing the number of its collocation arrangements "make[s] it *ever-increasingly dependent* upon [incumbent LEC] transport." As Covad explains, collocation, for all its delays, still takes less time than deploying CLEC or third-party transport, and collocating CLECs therefore are still totally dependent on the incumbent LECs' networks. Moreover, this dependence will continue at least until sufficient alternative transport can be deployed (in those instances in which such deployment is economically feasible).

The incumbent LECs' survey of fiber deployment also is inherently unreliable because it overstates the availability of alternative interoffice dedicated transport by including CLEC fiber that is not even used for interoffice transport. For example, the *Forbes* article that SBC and other incumbent LECs quote for the proposition that a "fiber frenzy" exists in the market for dedicated

²⁶¹ See, e.g., U S WEST at 50-51 (citing Huber Submission at II-8).

interoffice transport addresses the growth of the “long-haul fiber-optic system” in the United States, *not* the growth of fiber networks exclusively used for local dedicated interoffice transport.²⁶² Similarly, in discussing the alleged growth in the market for dedicated interoffice transport, the Huber Submission (at II-6) refers to competitive fiber that functions as a loop, not as dedicated *interoffice* transport, when it alleges that competitive fiber “serve[s] nearly 15 percent of all commercial office buildings.”²⁶³

Even if the Commission were to accept at face value the incumbent LECs’ statistics, CLECs presently are collocated in only 13 percent of all incumbent LEC wire centers, and CLECs possess only 11 percent of all available fiber.²⁶⁴ A market in which incumbent LECs control 89 percent of all capacity – and nearly 100 percent of the available capacity on most of the routes where CLECs need it – cannot be classified as competitive. More to the point, such facts show that alternative transport simply is not available on most of the routes where CLECs need it.

²⁶² SBC at 48 & n.86; *see also* Tom Mack, *Fiber Frenzy*, *Forbes*, Apr. 19, 1999.

²⁶³ The Huber Submission also makes other unwarranted assumptions. For example it assumes that a wire center is served by CLEC fiber even though the fiber does not even pass through the wire center. Huber Submission at II-8 n.34.

²⁶⁴ Huber Submission at II-8, Table 2; BellSouth at 51 (citing *1998 FCC Local Competition Report* at 8); *see also* *1998 FCC Local Competition Report* at 8 (“[a]t the end of 1997, new local competitors had at least 11% of the total fiber optic system capacity potentially available to carry calls within local telecommunication markets and to deliver calls to long distance carriers”); *id.* at 11, Chart 2.1 (showing that in 1997 incumbent LECs owned 14 million fiber miles and CLECs owned 1.8 million). The Commission also found that this 11 percent figure “overstates the relative size of competitive local networks . . . because it ignores the copper-based facilities of the [incumbent LECs].” *Id.* at 4.

Transport is not a homogenous good. The most egregious error the incumbent LECs commit, however, is not statistical inflation, but rather their disregard for the basic function dedicated interoffice transport performs. Specifically, they deem a wire center “competitive” when *some* CLEC fiber exists within the geographic area served by that wire center.²⁶⁵ Even if such a wire center-by-wire center approach were justified – and it is not²⁶⁶ – the only relevant question in assessing whether sufficient competitive alternatives for dedicated interoffice transport exist would be whether competitive alternatives exist *between all of the specific geographic points where CLECs need such transport.*

Dedicated interoffice transport is not a homogenous good – like a widget – that can be used regardless of where the transport facility happens to be located. As Covad explains (at 45),

²⁶⁵ Significantly, the Huber Submission does not make this claim. It merely makes a limited inquiry into the existence of competitive interoffice transport, and predicts that some undefined amount of CLEC fiber likely is available in “dense” wire centers where at least one CLEC has collocated. See Huber Submission at II-1-2, 8. It does not purport to show that significant amounts of competitive fiber are available in these areas, or that competitive fiber exists in all of the areas where CLECs need it. Nor does it claim that CLECs’ ability to provide service in these areas will not be impaired if unbundled dedicated interoffice transport is not available. All of these latter claims are made instead by the incumbent LECs in their comments, even though their own “Fact Report” does not back them up.

Similarly, the Declaration of R. Dean Foreman purports to identify markets “in which CLECs could readily deploy transport alternatives.” GTE at Ex. C, p. 3. In fact, however, even if Dr. Foreman’s analysis is taken at face value, it only shows that some CLECs pursuing specific and limited opportunities have collocated – and therefore potentially have deployed dedicated interoffice transport – in GTE wire centers with at least 15,000 lines. *Id.* at Ex. C, p. 8. It does not show that it would be economically rational for CLECs pursuing broader competitive strategies to deploy such transport, or that the limited competitive transport that currently exists provides a sufficient competitive alternative for CLECs in all of the specific locations where CLECs need it.

²⁶⁶ See *supra* Part III.A (illustrating that the Commission should adopt national unbundling rules rather than adopting a more granular state-by-state approach).

“demand for interoffice transport is inherently ‘point-to-point.’” As a result, dedicated interoffice transport between points A and B does not – and cannot – serve as an economical competitive alternative to unbundled dedicated transport between any other points on the CLEC’s or incumbent LEC’s network. Thus, as Covad (*id.*) correctly states, “[a] non-[incumbent LEC] alternative supplier that cannot provide that particular point-to-point connection is irrelevant to [the CLEC].” Consequently, the mere presence of *some* CLEC fiber in a wire center does not imply that *sufficient* dedicated interoffice transport is available to and from all of the *specific points* where CLECs may need it – *i.e.*, along all the feasible routes between incumbent LEC end offices and tandem switches, and CLEC points-of-presence.

Given these basic facts, it is not surprising that many CLECs have shown that they must rely extensively on incumbent LEC dedicated interoffice transport even in the “dense” wire center areas where the *Huber Submission* predicts that CLEC fiber likely is available. For example, Sprint (at 32-33) explains that in New York City – an area that has “dense” wire centers and above-average amounts of CLEC fiber – it “continued to use the [incumbent LEC] extensively . . . because the CLEC was not collocated in all [incumbent] LEC offices and hence could not offer a ubiquitous alternative.” Similarly, Covad (at 44) sampled four urban areas, all of which have “dense” wire centers – San Francisco, Chicago, New York, and Washington, DC – and found that “Covad is highly dependent on [incumbent LEC] dedicated transport in those markets for well over 83% of Covad’s demand for interoffice transport.” Indeed, “for nearly 84% of Covad’s total demand for particular point-to-point interoffice circuits, it has *no alternative* but the [incumbent

LEC's] interoffice network.”²⁶⁷ These facts definitively show that the incumbent LECs’ theoretical claims simply are not supported by real-world evidence. Rather, the facts show that the incumbent LECs’ ubiquitous networks are the only sources that provide the complete coverage CLECs need, and that CLECs thus are totally dependent on incumbent LECs for the vast majority of their point-to-point transport needs – even in “dense” wire centers.²⁶⁸

CLECs are not interchangeable. Similarly, the incumbent LECs improperly assume that a “dense” wire center is sufficiently competitive with respect to dedicated interoffice transport even if only one CLEC has fiber in that area.²⁶⁹ Contrary to the incumbent LECs’ assumption, however, the fact that one CLEC may have fiber at a particular wire center is often entirely irrelevant to another CLEC’s ability to obtain competitively priced dedicated interoffice transport

²⁶⁷ Covad at 45 (emphasis added).

²⁶⁸ As BellSouth (at 48-49) indicates, the Commission in the past has examined the competitiveness of markets “using aggregate data that encompasses all point-point markets in the relevant area.” Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61, *Regulatory Treatment of LEC Provision of Interexchange Services Originating in the LEC’s Local Exchange Area, and Policy and Rules Concerning the Interstate Interexchange Marketplace*, 12 FCC Rcd. 15756 ¶ 66 (1997). It has done so, however, only when “the competitive conditions for a particular service in any point-to-point market are sufficiently representative of the competitive conditions for that service in all other domestic point-to-point markets.” *Id.* Here, the only “competitive condition[]” that exists on most point-to-point routes is the *absence* of any alternatives to incumbent LEC dedicated interoffice transport. Accordingly, even if this point-to-point data are aggregated, they still indicate a general lack of sufficient competitive alternatives. What the incumbent LECs have not done – and cannot do – is to make the requisite showing that sufficient competitive alternatives exists on all, or even most, point-to-point routes where CLECs need dedicated interoffice transport.

²⁶⁹ See, e.g., Huber Submission at II-1 (“competitive interoffice transport is available is available to and from [incumbent LEC] wire centers that (a) contain competitive fiber and (b) have attracted *one* or more collocated CLECs”) (emphasis added).

between all the points it needs to connect. For example, even if MCI had fiber at a particular wire center, there is no guarantee – and indeed it is highly unlikely – that AT&T could use this fiber to serve all of AT&T’s dedicated interoffice transport needs.²⁷⁰ Not only is the MCI fiber unlikely to exist in all of the point-to-point locations where AT&T needs it, MCI may not have any excess capacity if it is using its fiber to serve its own needs.

3. The Record Confirms That Special Access Tariffs Are Not Material To The Section 251(d)(2) Analysis And, In Any Event, Are Not A Sufficient Alternative To Unbundled Dedicated Interoffice Transport.

The record shows that the availability of special access under the incumbent LECs’ tariffs is irrelevant to the Commission’s consideration of whether to require unbundling of dedicated interoffice transport. Most fundamentally, incumbent LECs may not avoid Section 251(c)(3)’s unbundling obligations by offering unbundled elements at higher, non-cost-based prices.²⁷¹ The comments further demonstrate that, in all events, special access rates are almost always significantly higher than unbundled dedicated transport rates, and thus would impair CLECs’ ability to provide service on a broad basis.²⁷² For example, Covad (at 47) confirms that “the price

²⁷⁰ See, e.g., Covad at 46-47 (“[e]ven where alternatives may be available on a particular route, the Commission must recognize that . . . capacity is not unlimited”); Allegiance at 18; Rhythms Netconnections at 20. Furthermore, even if MCI’s fiber is on all of the necessary routes and MCI has excess capacity on those routes, MCI is not under any obligation to lease excess to capacity to AT&T.

²⁷¹ See AT&T at 123-24 (quoting *First Report and Order* ¶ 287); see also MCI WorldCom at 65 n.43 (the fact that “there are also locations in which CLECs can purchase access service from [incumbent LECs] . . . is both factually unimportant and legally irrelevant”).

²⁷² AT&T at Ex. A ¶¶ 44-45 & Attachments 1 & 2; *id.* at Ex. B ¶ 14 (showing that a 30 percent increase in dedicated interoffice transport costs would require an increase of 97 percent in customer penetration).

differential between [incumbent LEC] special access service tariffs and unbundled dedicated transport are so extraordinary that it is not possible to consider these services to be an alternative source of supply.” MGC (at 16-17) agrees, noting that it costs MGC *nine times* more to purchase special access from the incumbent LEC’s access tariff than to purchase dedicated interoffice transport as an unbundled network element.²⁷³

Nothing in the incumbent LECs’ comments refutes this record evidence. The incumbent LECs simply claim once again that special access tariffs “can” serve as a sufficient alternative, at least in “dense” wire centers, because CLECs already have used these tariffs in these areas in limited circumstances.²⁷⁴ And, once again, their argument is fatally flawed because it erroneously

²⁷³ The incumbent LECs assert that the Commission has found in some past decisions that the dedicated interoffice transport market is competitive. *See, e.g.,* BellSouth at 49 (citing Report and Order and Notice of Proposed Rulemaking, *Expanded Interconnection with Local Telephone Company Facilities, et al.*, 7 FCC Rcd. 7369 (1992) (“*Expanded Interconnection Order*”)); *id.* at 52 (citing Memorandum Opinion and Order, *Application of NYNEX Corporation, as Transferor, and Bell Atlantic Corporation, as Transferee, for Consent to Transfer Control of NYNEX Corporation and its Subsidiaries*, 12 FCC Rcd. 19985 (1997) (“*Bell Atlantic/NYNEX Order*”)); Bell Atlantic at 27-29, SBC at 49. But the Commission has made no such finding. In the *Expanded Interconnection Order*, the Commission specifically sought to bring the benefits of competition to the interstate special access market – it did *not* find that the dedicated interoffice transport market was competitive. *See Expanded Interconnection Order* ¶¶ 5, 14 (noting that then existing tariff structures, for example, made “it economically infeasible for customers to use LEC facilities between their premises and a LEC central office, and CAP facilities between that LEC office and the IXC POP”). The Commission also noted that CAPs were limited primarily to providing transmission between customer premises and IXC POPs – *i.e.*, that they were *not* providing dedicated interoffice transmission services then, just as they generally do not today. *Id.* ¶ 4. Similarly, in the *Bell Atlantic/NYNEX Order* (¶ 111), the Commission merely found that *some* competitors were offering transport services, not that the transport service market was so competitive that CLECs would not be impaired in their ability to provide service if unbundled dedicated interoffice service were not available.

²⁷⁴ *See supra* pp. 123-25.

assumes that the methods used by CLECs to pursue specific and limited opportunities would be economically justifiable when the CLECs seek to serve greater numbers of customers.²⁷⁵

4. The Record Confirms That Dark Fiber Should Be Unbundled.

The record also demonstrates that dark fiber should be made available as an unbundled network element.²⁷⁶ The incumbent LECs, however, raise three erroneous arguments to support their claim that dark fiber should not be unbundled. First, they claim that dark fiber is not currently being “used” to provide a telecommunications service, and thus does not meet the Act’s definition of “network element.” *See, e.g.*, SBC at 51-52. This claim is incorrect, as at least four federal district courts already have held.²⁷⁷ Nothing in the Act requires a network element to be *currently* used, and the Supreme Court has held that such “temporal qualifiers” should not be read into a statute. *Robinson v. Shell Oil Co.*, 117 S. Ct. 843, 846 (1997). Indeed, the incumbent LECs’ modification would lead to absurd results, allowing an incumbent to avoid providing access to *any* facility currently unused – *e.g.*, a telephone line to a currently vacant building – even

²⁷⁵ *Id.*

²⁷⁶ *See, e.g.*, Allegiance at 18; ALTS at 55-56; AT&T at 121 n.228; C&W at 38; Choice One at 25-26; CoreComm at 37-38; e.spire at 25; Illinois CC at 15; Iowa Utils. Bd. at 9; KMC at 20-21; MGC at 26-27; Net2000 at 14; New England Voice & Data *passim*; Oregon PUC at 2; Qwest at 88-91; Texas PUC ¶¶ 31-36; Waller Creek at 3, 17.

²⁷⁷ *See U S WEST Communications, Inc. v. AT&T Communications, Inc.*, No. C97-1320OR, slip. op. at 14 (W.D. Wash. July 21, 1998); *MCI Telecomms. Corp. v. BellSouth Telecomms., Inc.*, 7 F.Supp.2d 674, 679-80 (E.D.N.C. May 22, 1998); *Southwestern Bell Tel. Co. v. AT&T Communications, Inc.*, No. A 97-CA-132 SS, 1998 WL 657717, *6-7 (W.D. Tex. Aug. 31, 1998); *U S WEST Communications, Inc. v. AT&T Communications, Inc.*, 31 F.Supp.2d 839, 853-54, 858 (D. Or. Dec. 10, 1998).

though that facility or equipment is fully capable of being used to provide telecommunications services.

Second, the incumbent LECs claim that CLECs' ability to provide service will not be impaired if dark fiber is not made available on an unbundled basis. *See, e.g.*, SBC at 54-55. This argument is false for the reasons discussed above in the context of self-provision and third-party vendors. *See supra* pp. 121-34. In particular, it ignores the costs and delays associated with these potential alternatives, erroneously infers the viability of competing more broadly through self-provisioned network elements from the existence of limited facilities-based competition, and incorrectly claims that sufficient CLEC and third-party capacity is widely available merely because some competitive dark fiber exists on a few routes. *Id.*

Third, the incumbent LECs claim that even if CLECs would be impaired by not receiving unbundled access to dark fiber, incumbent LECs still should not have to unbundle it because incumbent LECs are carriers of last resort and therefore allegedly need all of their reserve capacity. *See, e.g.*, GTE at 83-84. The incumbent LECs' carrier of last resort status, however, is irrelevant under the Act, which only directs the Commission to ask whether CLECs would be impaired in their ability to provide service if a network element is not made available. Furthermore, the incumbent LECs' claim is wrong as a factual matter. If a CLEC uses an incumbent LEC's dark fiber to serve a customer that the incumbent LEC has been serving with "lit" fiber, the incumbent LEC's lit fiber is freed up in direct proportion to the amount of dark fiber that is used. Accordingly, there is a one-to-one tradeoff between dark fiber and lit fiber. Furthermore, technological advances in office electronics – referred to as Dense Wave Division

Multiplexing (“DWDM”) – offer the potential of enormous capacity increases for existing fiber that already is in use.

F. Operator Services, Directory Assistance, And Directory Listings

A wide range of commenters, including entrants, alternative OS/DA providers, and state commissions, persuasively argue that incumbent LEC failure to unbundle OS/DA would impair the ability of CLECs to compete.²⁷⁸ For example, the Oregon Public Utility Commission “considered the availability and adequacy of network elements outside the ILECs’ networks in determining” that incumbent LECs must unbundle their OS/DA services.²⁷⁹ Indeed, hardly any commenters other than the incumbents oppose OS/DA unbundling.²⁸⁰

Incumbent LECs, on the other hand, argue that they should not be required to unbundle OS/DA because, they allege, there are only four inputs to providing these services – directory listings, operators, computers, and real estate – all of which are freely available.²⁸¹ Their arguments are fatally flawed in two respects. First, they fail to recognize the important difference between the *provision* of OS/DA services and the *delivery* of OS/DA traffic to the appropriate OS/DA platform; specifically, they ignore a fifth crucial input, customized routing, that AT&T

²⁷⁸ See, e.g., Illinois Commerce Commission at 14; Connecticut PUC at 3-4; GSA at 5-6; Net2000 at 16-17; Allegiance at 22-24; RCN at 19-20; CoreComm at 32-33; Cox at 32-34; MediaOne at 11-13; KMC at 17; Ad Hoc at 11; Choice One at 20; CPI at 31; CompTel at 46-47; Sprint at 28; Qwest at 87-88; Oregon PUC at 2; Iowa Util. Bd. at 6-7; MCI WorldCom at 70-74; Teltrust at 7-10; Metro One at 20 (DA); AT&T at 126-34; *accord* Kentucky PSC at 2; Florida PSC at 7.

²⁷⁹ Oregon PUC at 4.

²⁸⁰ But see Ohio PUC at 11-13.

²⁸¹ See, e.g., GTE at 51; SBC at 59; BellSouth at 79; Ameritech at 110; *accord* U S WEST at 55.

and others demonstrated is necessary when CLECs rely on unbundled switching. Second, incumbent LECs have not made their directory listings, which are by far the most accurate listings currently available, accessible to CLECs under reasonable, nondiscriminatory rates and conditions. Thus, the Commission must require incumbents to make OS/DA services available to CLECs as unbundled elements at least until the incumbents have implemented fully-tested customized routing capabilities, and it must also require on an on-going basis that incumbents provide directory listings as unbundled network elements.

Customized routing. Assuming that a CLEC can obtain accurate directory listings (as well as provision operators, computers, and real estate),²⁸² it might be in a position to develop and operate its own alternative OS/DA platform – but only if it can deliver its local OS/DA traffic to that alternative platform.²⁸³ As AT&T explains (at 126-28), without an Advanced Intelligent

²⁸² The CLEC also could rely on a third party provider of OS/DA services that has access to accurate directory listings.

²⁸³ See also MCI WorldCom at 73; Qwest at 88. The Washington UTC deregulated the provision of OS/DA services, but it did *not* find that customers could reach alternative OS/DA platforms using traditional dialing sequences. *Petition for Competitive Classification of Directory Assistance Service*, Docket UT-990259, Staff Recommendation (Washington UTC, April 28, 1999), *approved*, U S WEST Communications, Inc. (T045), (Washington UTC, April 29, 1999). In fact, the Washington UTC specifically noted that customers may need to use dialing around sequences. *Id.* Further, while it is true that CLECs have sought a different wholesale discount rate for those instances where they self-provision OS/DA services (recognizing that the CLECs control and pay for their own operators, real estate and computers), that does not mean that CLECs are actually able to route OS/DA traffic to their designated platforms, as the Ohio PUC seems to suggest. See Ohio PUC at 12 (noting that CLECs have asked for a different wholesale discount when they provide their own OS/DA). Such routing is impossible unless incumbent LECs provide customized routing; thus, CLECs sought a different wholesale discount rate based on the *assumption* that incumbent LECs would provide them with customized routing, an assumption that is still not a reality with most incumbents.

Network ("AIN") or Line Class Code ("LCC") customized routing solution, CLEC customers cannot reach the CLEC's designated OS/DA platform using traditional dialing sequences such as 411, 1-411, 555-1212, NPA-555-1212, 0-, and 0+, *i.e.*, the dialing sequences to which customers have been long accustomed.²⁸⁴ Hence, the existence of national or regional OS/DA platforms alone does not obviate the need for unbundled OS/DA.²⁸⁵

Directory listings. Assuming that CLECs can deliver their local OS/DA traffic to an alternative platform, they still must have access to directory listings that are as accurate and as complete as the listings used by the incumbents.²⁸⁶ Otherwise, the CLECs' directory assistance

²⁸⁴ MCI WorldCom (at 73) seems to imply that AT&T may not need the customized routing solutions that CLECs require in order to route their OS/DA traffic to alternative platforms. While it is true that AT&T often can take advantage of Feature Group C MOSS ("FGC") trunks, AT&T still is dependent on incumbent LECs to implement customized routing solutions in order to route traffic over FGC trunks.

²⁸⁵ For example, some incumbent LECs point to the fact that AT&T today provides a long distance OS/DA platform. *See, e.g.*, Huber Submission at IV-1; SBC at 60. For OS/DA traffic to reach that platform, however, customers must dial "00" instead of just "0," a difference that is important for a number of reasons. First and foremost, "00" dialing is a long distance OS/DA service, not a local OS/DA service, because dialing "00" routes OS/DA calls to a customer's long distance carrier. Hence, if a CLEC wins a customer's local service, but a different carrier provides that customer with long distance service, "00" will route the customer to the long distance carrier – not the CLEC. Second, as the Commission long has recognized, even a small dialing parity difference can be important. *See, e.g.*, Order, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, 1999 WL 156020 (F.C.C.) ¶ 5 (rel. March 23, 1999); Second Report and Order and Memorandum Opinion and Order, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 11 FCC Rcd. 19392 ¶ 34 (1996); *AT&T v. FCC*, 832 F.2d 1285, 1287-91 (D.C. Cir. 1987) (upholding Commission decision that gave AT&T competitors huge access charge discounts because they did not have dialing parity with AT&T). Concluding in this proceeding that "00" or eight-digit dialing is in any way comparable to 411, 1-411, 555-1212, NPA-555-1212, 0-, and 0+ services would constitute a sea change in Commission policy and place local entrants at a significant competitive disadvantage.

²⁸⁶ For directory listings to be as complete as those incumbent LECs provide themselves, they must supply CLECs with 10-digit, not 7-digit, telephone numbers. The proliferation of area
(continued . . .)

services will not be equal in quality to the incumbents' service. In order to ensure that CLECs can provide competitive OS/DA services, AT&T agrees with the California PUC (at 7) that directory listings should be identified as an unbundled network element. Indeed, Section 153(29) specifically includes "subscriber numbers" and "databases" within the definition of a network element. These are the exact raw materials the incumbents use to provide their own DA services.

Further, the record evidence clearly demonstrates that if incumbent LEC do not unbundle their directory listings CLECs' ability to offer services would be impaired. The commenters all recognize²⁸⁷ that without access to incumbent LEC directory listings, CLECs must turn to alternative sources, including scanned white pages, voter registrations, and postal change of address forms.²⁸⁸ While incumbent LECs claim these secondary sources are adequate, nothing could be further from the truth.

All of the alternative listing sources have critical limitations. As Metro One (at 3) states, "[t]hird party [directory listing] data [are] highly inferior and cannot be relied on if a provider is to

(... continued)

codes is making it increasingly difficult for CLECs to assign 7-digit customer telephone numbers to the appropriate areas. By contrast, the area code information easily can be added (if not already present) to the directory listings at the time the directory listings batch is created. In addition, for non-published customers, the incumbent LEC must provide the customer's name, address and an indicator that that customer's listing is unpublished. See AT&T (at 133, n.262).

²⁸⁷ E.g., Allegiance at 23-24; Teltrust at 8-9; Qwest at 87.

²⁸⁸ As AT&T explains in its comments (at 128-31), CLECs also need nondiscriminatory access and updates to incumbent LEC emergency listings in order to offer local services comparable in quality to local services offered by incumbent LECs. Accord Allegiance at 24; Cox at 33.

remain competitive.”²⁸⁹ For example, scanned “printed directories[,]” the most common sources of third party data, “are out-of-date by the time they are released[,]” often by as much as a year.²⁹⁰ Outdated listings, and the diminished accuracy of compilations from different data sources that were not developed for directory listings purposes, significantly undermine the quality of third party directory listings. Consequently, “[a]s the dominant providers of local exchange services, the ILECs have a unique advantage in the [directory listings] business, because they have the *only* complete and reliable [directory listings] databases.”²⁹¹ The incumbent LECs simply update their directory listing databases as part of the service order process, giving them same day – not last year – accuracy. Thus, the incumbent LECs have directory listings approaching 100 per cent accuracy, while directory listings from third parties may be less than 80 per cent accurate.²⁹² This

²⁸⁹ Teltrust at 9 (“Although a provider may compile its own database using publicly available sources, such a database would suffer from information deficiency”); MCI WorldCom at 72 (“Data from non-ILEC sources tend to have twice as many inaccuracies, as well as being far less complete”); AT&T at 130-31; MediaOne at 12-13; Allegiance at 23-24; Cox at 32-33; CPI at 31; Metro One at 16; accord Choice One at 20; KMC at 17; CoreComm at 32; Qwest at 87-88.

²⁹⁰ Teltrust at 9. *See also* AT&T at 131; MCI WorldCom at 72; Metro One at 3; CPI at 31.

²⁹¹ Metro One at 3. *See also* Cox at 32; MediaOne at 12 (quantifying the “delay” factor in terms of speed of answer: third party service providers answer in 15 to 18 seconds whereas the incumbent LECs can do so in 6 seconds).

²⁹² *See, e.g.,* Metro One at 3 (“ILEC data is approximately 95% accurate while third party data is less than 80% accurate”); Allegiance at 23-24; Cox at 32. Incumbent LEC directory listings also are more comprehensive than third party sources in those instances where the incumbent LECs share directory listings with neighboring incumbent LECs. *See* AT&T at 131 n.253.

quantifiable difference clearly proves that CLECs would be impaired if they were denied access to the incumbents' listings.²⁹³

Critically, incumbent LECs have no incentive to cooperate with CLECs and to provide them with nondiscriminatory access to their directory listings. As the record demonstrates, their lack of incentive has led to three different types of competitive subversion: excessive rates, unreasonable access limitations, and discriminatory use restrictions. Commenters put incumbent LEC charges for directory listings at about \$0.02 (or more) per listing,²⁹⁴ even though incumbents' costs are no more than \$0.009, and may be \$0.004 per listing or lower.²⁹⁵ In other words, incumbent LEC charges for directory listings may exceed their costs by more than 500 percent. Not surprisingly, then, Teltrust (at 8) concludes that "based on [our] experience, buying [directory] listings as tariffed offerings from the ILECs is prohibitively expensive."²⁹⁶

²⁹³ Teltrust at 10 ("Customers expect to obtain full and accurate directory assistance without unreasonable delay, and they would perceive [OS/DA] information that falls short of their expectations as deficient," Metro One at 3 ("The most critical component in providing reliable, dependable and competitive DA is being able to access accurate data."); MCI WorldCom at 70-71 ("if the DA operator is unable to provide a listed number or provides an incorrect telephone number, the customer will immediately know of the failure and will have an immediate negative impression of its service provider"); Cox at 33-34; RCN at 20; Allegiance at 24; Net2000 at 17.

²⁹⁴ See, e.g., AT&T at 132-33 ("it has been AT&T's experience that incumbent LECs routinely charge between \$0.02 and \$0.06 per listing"); Teltrust at 9 ("directory listing range from \$0.18 to \$0.21 per customer listing").

²⁹⁵ In its comments, AT&T (at 132) calculated initial incumbent LEC directory listing retrieval costs at no more than \$0.009 and update listing costs at \$0.012. Using more recent information, Metro One (at 8) estimates that these costs are approximately \$0.004 and \$0.0076, respectively, based on Bell Atlantic tariff filings.

²⁹⁶ See also Qwest at 87.

Finally, incumbent LECs frequently impose use restrictions on their directory listings.²⁹⁷ These restrictions, such as prohibitions against allowing customers to access listings via the Internet, are precisely the types of applications for which incumbent LECs increasingly use their directory listings.²⁹⁸ Clearly, these limitations are discriminatory, stifle innovation and must be prohibited. Thus, the Commission should find that directory listings are network elements to assure that CLECs are permitted to use directory listings obtained from the incumbent LECs in any manner that the incumbent LECs could legally use their listings.

G. Operations Support Systems

The comments voice virtually unanimous support for the Commission's continued requirement that incumbent LECs provide unbundled access to their operations support systems,²⁹⁹ and the Commission should continue to insist under its existing standards that such access be provided on a nondiscriminatory basis. Some incumbent LECs, however, assert that access to OSS should be made available only "in conjunction with" instances where CLECs are

²⁹⁷ See AT&T at 133-34.

²⁹⁸ Another way that incumbent LECs have undermined entrants' ability to compete is to force CLECs to use a data dip process to obtain directory listings, increasing CLEC costs and undermining their ability to develop unique services as well as substantially increasing the delays customers must encounter when requesting a directory listing from the CLEC. See, e.g., AT&T at 131-32; MCI WorldCom at 72 (under a data dip process "any innovation on the part of the CLEC would be stifled: if the CLEC created new search strategies or services based on its existing directory assistance system, it would be held hostage to the ILEC performing the same development. If the CLEC were forced to share its plans for new services with the ILEC, any competitive advantage would be lost").

²⁹⁹ See, e.g., AT&T at 134-35; MCI WorldCom at 67-70; GSA at 5; ALTS at 35, 58; Sprint at 28; CompTel at 45-46; TRA at 41-42; KMC at 16; RCN at 18-19; Net2000 at 15-16; Cox at 30-31; CPI at 29-30; Covad at 53-54; e.spire at 21-22.

“reselling ILEC services or buying unbundled network elements.” GTE at 71; *see* U S WEST at 41. There is no basis in the Act for such a limitation, and the Commission should reject it.

The impairment standard in section 251(d)(2)(B) asks whether, if access to the element is denied, the carrier would be impaired in providing “the *services* that it seeks to offer.” 47 U.S.C. § 251(d)(2)(B) (emphasis added). Under the Act’s plain language then, the mode of entry – resale, unbundled network elements, or facilities-based – is irrelevant. For example, CLECs using their own facilities would be impaired in offering services absent access to the pre-ordering functions of the incumbent LECs’ OSS. Pre-ordering includes access to information like customer service records, street address validation, telephone number information, and services and features information. *Louisiana II* ¶ 94. As the Commission has found, CLECs “would operate at a significant disadvantage with respect to the incumbent” without this type of “critical” information, *First Report and Order* ¶ 518, and that remains true even if the CLEC will otherwise provide service to that customer using its own facilities. While incumbent LEC service representatives would have that information instantly in front of them during a customer contact, CLEC representatives would have to rely on the customer’s memory. As the Commission has concluded in a related pre-ordering context, “[t]o compete effectively in the local exchange market, new entrants must be able to . . . interact with their customers as quickly and efficiently as [the incumbent LEC].”³⁰⁰ Because OSS access for pre-ordering as well as other functions is

³⁰⁰ Memorandum Opinion and Order, *Application of BellSouth Corp., et al., To Provide In-Region, InterLATA Services in South Carolina*, 13 FCC Rcd ¶ 159 (1997).

essential to such competition, nondiscriminatory unbundling of OSS must be required in all instances, even where the CLECs plans to serve the customer with its own facilities.

H. Advanced Telecommunications Services

The comments confirm the need for CLECs to have access to incumbent LEC loops capable of supporting advanced services in order to ensure that competition for such services is available to all Americans. Despite their initial reluctance to embrace xDSL technology, incumbent LECs have now responded to the prospect that other technologies (notably upgraded cable networks) may someday offer widespread advanced services capability, and are now aggressively rolling out their own xDSL capability. Although BellSouth claims (at 39) that xDSL service will be available to only one million homes by the end of 1999, the RBOCs and GTE alone have announced plans to bring xDSL capability to more than *31 million* homes by the end of this year.³⁰¹

The key to all deployment of xDSL services – whether by incumbent LECs or CLECs – is access to the loop required to provide the service. The comments filed herein confirm that all types of loops, including those used to provide advanced services (*e.g.*, xDSL capable and xDSL

³⁰¹ Bell Atlantic – 8 million homes, (May 24, 1999 Bell Atlantic News Release, <http://www.ba.com/nr/1999/May/19990524002.html>); BellSouth – 6 million lines by September, 1999 (May 3, 1999 BellSouth News Release, <http://www.bellsouthcorp.com/proactive/documents/render/26162.vtml>); GTE – 6 million homes (Mar. 19, 1999 JP Morgan Report); SBC – 8.2 million customers (Apr. 14, 1999 SBC News Release, http://www.swbell.com/News/Article.html?query_type=article&query=19990414-01); U S WEST – 3 million homes (Mar. 19, 1999, JP Morgan Report. Ameritech reportedly has decided to hold back its xDSL deployment pending the outcome of the Commission's advanced service proceedings, but previously had announced that it expected to have DSL available to 8 million homes by the end of 2000. Apr. 16, 1998 Ameritech Press Release.

equipped loops), qualify as unbundled network elements. However, the establishment of such loops as network elements is only the first step toward ensuring the availability of competitive xDSL services to residential and small business customers. Additional processes and procedures must be established and implemented to give new entrants access to the loop information necessary to provide advanced services effectively. Similarly, nondiscriminatory cageless and shared collocation arrangements must be implemented so that the efficient, low cost collocation promised by the Commission's recent *Advanced Services Order* can become a reality.

CLECs also need access to equipped loops where access to copper loops does not exist or where collocation is not available. Moreover, CLECs should also have access to equipped loops wherever the incumbent has deployed DSLAM functionality and the CLEC is providing local exchange service using a combination of network elements, *i.e.*, through use of the UNE platform. It would serve no purpose other than to retard the development of broad-based advanced services competition to insist on a mandatory collocation requirement for provision of advanced services where a CLEC is otherwise deploying competitive voice services through use of the UNE platform.

Finally, the Commission need not require spectrum unbundling in connection with local loops. For reasons that will be addressed more fully in CC Docket 98-147, the mandatory allocation of frequencies within the same loop could raise significant policy and operational issues, and stifle innovative uses of loop bandwidth, with no clear offsetting consumer benefits.

1. Incumbent LECs Must Provide Nondiscriminatory Access To The xDSL Capable Loops Necessary To Provide Advanced Services.

With the exception of SBC, which asserts that “CLECs do not need *any* ILEC network elements,”³⁰² all commenters who address the issue – CLECs,³⁰³ incumbent LECs,³⁰⁴ advanced services providers,³⁰⁵ a policy institute,³⁰⁶ equipment manufacturers,³⁰⁷ and a federal agency³⁰⁸ – agree that new entrants need access to xDSL capable loops in order to compete effectively. The Commission therefore should reiterate its ruling in the *First Report and Order* (§ 380) that incumbent LECs must provide nondiscriminatory access to xDSL capable loops as part of the loop UNE. The Commission should also confirm that such nondiscriminatory access includes:

- access to all information necessary to determine if it is possible to provide xDSL capabilities to a particular customer;
- development of reasonable methods and procedures for cageless and shared collocation;

³⁰² SBC at 77 (emphasis in original).

³⁰³ *E.g.*, Allegiance at 15; ALTS at 41; Cable & Wireless at 34; Choice One at 22; CompTel at 32; KMC at 19; MCI at 48; NEXTLINK at 21; Qwest at 61; Sprint at 35; TRA at 42.

³⁰⁴ *E.g.*, Ameritech at 120; Bell Atlantic at 41; BellSouth at 36. U S WEST does not agree that any unbundling obligations apply to advanced services, but does not challenge basic unbundling requirements for the local loop. U S WEST at 56-57. GTE agrees that CLECs require access to conditioned loops to provide advanced services, but contends that incumbent LECs should be required to provide conditioned loops “only in those areas where the ILEC provides conditioned loops for its own use. GTE at 77 & n.60.

³⁰⁵ Covad at 33; e.spire at 23; MGC at 14; Net2000; Northpoint at 14; Prism at 21; RCN at 16; Rhythms at 14.

³⁰⁶ CPI at 15.

³⁰⁷ Information Technology Industry Council at 4.

³⁰⁸ GSA at 6.

- implementation of non-preferential spectrum management and equipment qualification practices;³⁰⁹ and
- establishment of the operational procedures necessary to ensure that CLECs can compete on an equal footing.

SBC's efforts to establish an exception prove the need for such rules. Although SBC concedes that it will comply with a Commission ruling that requires provision of xDSL capable loops as part of the loop UNE, it qualifies this "concession" by stating that incumbent LECs need only provide such conditioned loops "in those instances where they have already conditioned the loop."³¹⁰ In other situations, SBC will only condition the loop if the CLEC pays an up-front, so-called "fair rate" for conditioning.³¹¹ Indeed, SBC asserts that any requirement that it condition loops without such exorbitant "compensation" – *i.e.*, any requirement that it remove its installed load coils and bridge taps (which degrade the advanced services performance of the loop) – would constitute the provision of a superior service, "which the Supreme Court would certainly reject."³¹² GTE makes a similar argument.³¹³

³⁰⁹ AT&T will address spectrum management issues in the pending further rulemaking proceeding in CC Docket 98-147.

³¹⁰ SBC at 77. GTE contends that any requirement to provide xDSL capable loops should be limited to central offices where the incumbent LEC provides such capable loops to itself. GTE at 87.

³¹¹ SBC's proposed "fair rate" is not based on TELRIC principles, but rather on its retail conditioning charge, which it states is \$900. *SBC* at 77.

³¹² *Id.* at 79.

³¹³ GTE argues that requiring incumbent LECs to provide conditioned loops in areas where the incumbent LEC does not provide conditioned loops to itself violates the Act. GTE at 87. In such areas, GTE apparently would offer conditioned loops through a "wholesale tariff" at a price that it would determine without reference to its obligations under § 251. *Id.*

SBC and GTE are wrong. The requirement that an incumbent LEC remove impediments that it has placed on an individual loop does *not* constitute the provision of a superior service. Requiring the incumbent to *remove* equipment or electronics that *inhibit* data transmission simply gives effect to the Commission's prior findings that the incumbent LEC is required to make all features, functions, and capabilities of the loop available to CLECs, rather than limiting the features, functions, and capabilities of the loop to those that the incumbent LEC has chosen to use.³¹⁴ Moreover, the Commission has already found that loop conditioning constitutes a modification necessary for incumbent LECs to meet their obligations to provide nondiscriminatory access.³¹⁵ Further, the Eighth Circuit endorsed the Commission's determination that the obligations imposed by section 251(c)(3) include modifications to incumbent LEC facilities necessary to accommodate access to network elements.³¹⁶

More importantly, SBC's claim that it should be permitted to restrict the competitive provision of xDSL service through outright refusal to condition loops or through the imposition of economically prohibitive rates proves the need for Commission rules and the development of nondiscriminatory processes and procedures to ensure that CLECs will in fact be able to take commercial advantage of xDSL capable loops. For example, CLECs must have access to information regarding the physical properties of the incumbent's loops in order to know in advance: (a) whether the existing electrical characteristics of the loop can support xDSL services

³¹⁴ *First Report and Order* ¶ 260.

³¹⁵ *See id.* at ¶ 382.

³¹⁶ *Iowa Utils. Bd. v. FCC*, 120 F.3d at 813, n.33.

to customers; (b) whether the electrical characteristics of the loop can be modified (conditioned) to support xDSL services; (c) whether the provision of xDSL services through collocation (at the central office or remote terminal) is feasible; and (d) whether intervening equipment on the loop (e.g., digital loop carrier, fiber systems, etc.) may inhibit xDSL service deployment except through collocation.³¹⁷ Incumbent LECs have used their discriminatory access to such information to deter CLECs' competitive efforts by, among other things, denying the existence of necessary facilities, even where the incumbent LEC is using qualified facilities to provide its retail service.³¹⁸ Affirming CLECs' right to nondiscriminatory access to such key information would help prevent incumbent LECs from exploiting control of that information to gain unwarranted competitive advantage.

In like manner, the comments demonstrate the need for carriers to develop reasonable methods and procedures for cageless and shared collocation, both in central offices and remote terminals. As MCI WorldCom points out, "the delay and costs of collocation can be

³¹⁷ See, e.g., ALTS at 60 (incumbent LECs must make readily available "loop qualification information"); Covad, Att. 1 at 2 (Draft rules – incumbent LECs must furnish CLECs with nondiscriminatory access to information regarding the technical characteristics of local loops, including: the make-up of the loop; the existence of any electronics and equipment on the loop; the impedance of the loop; the condition and location of the loop; loop length, including the length of the copper portion, including any bridge taps; wire gauge of the loop; and the electrical parameters of the loop); McLeodUSA (CLECs must have access to incumbent LEC databases that show the availability of cable pairs and the type of digital loop carrier deployed); Rhythms at 22-23 (CLECs need access to information in the incumbent LECs' legacy systems, such as LFACs, regarding whether the loop contains load coils, bridge taps, repeaters, Digital Added Main Lines or DLC); Sprint at 38 (CLECs need access to incumbent LEC databases that show which loops qualify as xDSL-capable).

³¹⁸ Rhythms at 16. See Covad at 33.

substantial.”³¹⁹ Indeed, Sprint cites costs for collocating its own DSLAMs that on average ranged from \$26,000 to \$92,000 by RBOC, and went as high as \$358,000 for an individual site.³²⁰ The Commission has attempted to reduce these impediments to competition with its recently adopted collocation rules.³²¹ Yet, incumbent LEC actions and comments demonstrate that processes and procedures to implement collocation options such as cageless collocation have not yet been developed, much less successfully implemented.

BellSouth, for example, initially indicated it was unsure whether it would comply with all of the Commission’s collocation rules.³²² Now, BellSouth indicates that it will continue to force CLECs to enforce their collocation rights through litigation and regulatory proceedings. Thus, BellSouth states that the “*Advanced Services Order* provides CLECs with, among other things, *claims* to shared and cageless collocation.”³²³ Likewise, Rhythms reports that incumbent LECs

³¹⁹ MCI WorldCom at 50.

³²⁰ Sprint at 36.

³²¹ *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, First Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 98-147, FCC 99-48 (rel. Mar. 31, 1999).

³²² See, e.g., Direct Testimony of W. Keith Milner, Florida PSC Docket Nos. 980946-TL, *et al.*, (filed Apr. 9, 1999) at 19-20 (FCC rule permitting CLEC construction of adjacent controlled environmental vaults conflicts with the Act), 12 (FCC rules conflict with local building and safety codes, which will take time to resolve); BellSouth Telecommunication, Inc.’s Motion for Continuance of the Proceedings, Florida PSC Docket Nos. 980946-TL, *et al.*, (filed May 21, 1999) at 3 (“BellSouth will begin implementation of the vast majority of these rules”), 4 (“BellSouth is contemplating seeking clarification, waiver, or reconsideration . . . on some issues set forth in the [FCC’s] order”).

³²³ BellSouth at 36 (emphasis added). Although BellSouth later claims that it actually provides cageless and shared collocation “options,” it does not state that it is providing these options in compliance with the Commission’s rules or pursuant to publicly available nondiscriminatory offerings.

“have shown no willingness to comply” with the new rules, and that “[a]ll indications demonstrate that ILECs will take months, at best, to fully implement the new collocation rules.”³²⁴

Processes and procedures also must be established and implemented for access to copper distribution plant when DLC or other electronics, such as optical systems, that may inhibit or preclude xDSL deployment by CLECs are deployed between the end of a copper facility and the central office. In order to provide xDSL service, even BellSouth admits that a CLEC’s DSLAM must be connected directly to an all-copper loop.³²⁵ Where an incumbent LEC deploys remote DLC equipment, CLECs do not have such direct copper connectivity. Unless a CLEC can access such copper – either with its own or the incumbent’s DSLAM – “CLECs will be unable to provide ubiquitous DSL service, and notably will not be able to serve most rural areas.”³²⁶ Thus, incumbent LECs must be required to provide: (1) alternative or spare copper that supports equal end user service quality;³²⁷ and (2) collocation in or near the remote terminal to enable CLECs to obtain access to the copper distribution plant,³²⁸ including installation of a line card in the

³²⁴ Rhythms at 26-27.

³²⁵ BellSouth at 35 n.32.

³²⁶ MCI at 50.

³²⁷ ALTS at 45-46; Covad at 39; Rhythms at 15 (“line and station” transfer of a loop from DLC to copper).

³²⁸ See, e.g., ALTS at 48; CompTel at 32; KMC at 20; Level 3 at 18; Northpoint at 16-17; Prism at 21; RCN at 22-23; Rhythms at 15; Sprint at 37.

incumbent's rack.³²⁹ Otherwise, the incumbent LECs' increasing deployment of DLCs could effectively preclude CLECs from providing competitive advanced services.

2. Incumbent LECs Must Provide Nondiscriminatory Access To The xDSL Equipped Loops Necessary To Provide Advanced Services.

Except for incumbent LECs, there is little dispute that incumbent LECs must provide access to equipped loops where collocation is not possible.³³⁰ Even those commenters who contend that xDSL equipped loops should not generally be considered a UNE recognize the need for such treatment where access to xDSL capable loops is not available.³³¹ For example, "where loops and collocation are unavailable to a requesting competitive LEC," Northpoint would require the incumbent LEC to provide CLECs access to unbundled DSLAMs.³³² Similarly, although it does not believe that DSLAMs generally meet unbundling standards, Rhythms would require incumbent LECs to make their DSLAMs available on an unbundled basis "where a CLEC is denied collocation space where it would otherwise have installed its own DSLAM equipment," and where CLECs "are unable to access a full clean copper loop."³³³

³²⁹ Covad at 39 (installation of IDSL line card); Northpoint at 17 (rack sharing); Sprint at 35 (xDSL line cards when next generation DLC deployed).

³³⁰ See, e.g., ALTS at 45-46; Choice One Communications, et al., at 26; Level 3 at 23; MCI WorldCom at 50; Qwest at 63; Sprint at 36-37.

³³¹ The majority of commenters, however, confirm that "loop electronics are all part of the loop transmission facility and should be identified as part of the loop element." MCI WorldCom at 48. See, e.g., Cable & Wireless at 35; Competition Policy Institute at 16 n.11; CompTel at 32; GSA at 6; Level 3 at 23; KMC at 24; MCI at 48; McLeodUSA at 8-9; Qwest at 62; Sprint at 35; TRA at 42.

³³² Northpoint at 18-19.

³³³ Rhythms at 26. Similarly, although the Information Technology Industry Council contends that incumbent LECs should not be required to provide the electronics associated with advanced (continued . . .)

Moreover, even where collocation space is available, CLECs would be impaired if they were denied access to equipped loops in those circumstances where the CLEC otherwise is using UNE combinations to provide competitive voice and data services. Broad market entry by CLECs is feasible in the near term only through widespread use of the UNE platform combination for voice services. CLECs using the platform will need to compete for incumbent LEC customers who already have advanced service capabilities, and those who may want to add such capabilities upon moving to the CLEC. Alternatively, customers may want advanced service capability in connection with new service establishment. Residential and small business customer should not be denied the benefits of advanced services competition by virtue of the incumbent LECs' imposition of mandatory collocation requirements. Such a policy would undo much of the competitive benefit realized through use of the UNE platform for mass market entry. Accordingly, where the incumbent LEC has deployed DSLAM functionality, CLECs must be permitted to use xDSL equipped loops, not just basic loops, in a UNE-P combination.³³⁴

(... continued)

services, it apparently would require access to such xDSL equipped loops where the incumbent LEC does not comply "with its collocation, interconnection and loop unbundling obligations." See Information Technology Industry Council at 6. In such circumstances, the incumbent LEC would not be required to unbundle DSLAMs (or other data UNEs) on a wholesale basis. Instead, the incumbent LEC would be required to provide competitors with access to loops that would permits all xDSL providers to offer advanced services where, due to the incumbent LEC's action, no other provider could do so except with an equipped loop.

³³⁴ Such a requirement does not involve CLEC access to unbundled data elements. Rather, it simply obligates the incumbent LEC to provide a loop that delivers the end user's voice traffic to the incumbent LEC network for subsequent switching and the customer's data traffic to the CLEC network for subsequent routing.

Ameritech and BellSouth contend, however, that they should not be required to provide xDSL equipped loops because alternative technologies exist for the provision of broadband services, and because such alternative advanced services providers, including cable system operators, are not subject to any unbundling obligations.³³⁵ Yet, these incumbent LECs fail to recognize critical distinctions between advanced services provided over cable infrastructure and advanced services provided over the incumbent LECs monopoly network. Cable, unlike circuit-based telephony, is a shared medium. As a result, cable operators must upgrade entire systems for two-way capability before they can offer advanced services (and cable-based telephony) to a single customer.

By contrast, incumbent LECs can use their existing monopoly networks to rapidly provide advanced services. Thus, by deploying modems at the customer premise and in the central office, incumbent LECs can immediately begin providing advanced services to individual customers within 18,000 feet of a central office. The speed with which incumbent LECs can deploy such broadband access is demonstrated by the fact that they essentially went from a standing start in 1998 to a point where the RBOCs and GTE expect to offer advanced services capability to more than 31 million homes by the end of this year.³³⁶

Incumbent LECs control almost all residential local exchange service today. Moreover, the overwhelming preponderance of residential customers access the Internet through dial-up

³³⁵ Ameritech at 119-20; BellSouth at 38-41. *See also* Bell Atlantic at 41; GTE at 74-77; SBC at 67-68 (each stressing the existence of advanced services competition).

³³⁶ *See supra* note 301.

access over incumbent LEC facilities. AT&T (and other cable operators) are now re-engineering their cable systems to accommodate something the incumbent LEC networks – which were bought and paid for by captive ratepayers in a rate-of-return environment – have always been capable of handling – two-way traffic. Congress properly recognized in both the Cable Act and the 1996 Act that it made no sense to impede cable company introduction of such competition through imposition of unnecessary unbundling obligations.

By contrast, incumbent LECs seek to use their control over the last mile to protect their existing monopolies by excluding competitors. Thus, while at the same time contending (at 74-75) that CLEC deployment of xDSL demonstrates the competitiveness of the advanced services arena, SBC asserts that no need therefore exists to unbundle *any* network element for advanced services, including xDSL capable loops. Yet, such competitive DSL deployment could not occur without access to those incumbent LEC-provided xDSL capable loops. In the 1996 Act, Congress astutely recognized the natural inclination incumbent LECs would have to protect their local monopolies, and sought to promote local competition through – among other things – the network unbundling requirements of section 251(c)(3). As demonstrated above, incumbent LECs should be required to provide CLECs nondiscriminatory access to: (1) xDSL capable loops; (2) xDSL equipped loops where collocation is not possible or access to copper distribution plant with equivalent serving characteristics is not possible; and (3) xDSL equipped loops, where the incumbent LEC has deployed DSLAM functionality and the CLEC is providing voice service through use of the UNE platform.

3. Spectrum Unbundling Should Not Be Required.

Some commenters have asked that the Commission require incumbent LECs to allocate frequencies amongst service providers using their loops, thereby separating the voice frequencies from the data frequencies so that CLECs that wish to provide only data services may purchase the data bandwidth alone from the incumbent LEC as a UNE. This issue, and similar policy and operational issues, are being addressed in the further rulemaking proceeding in CC Docket 98-147, and AT&T will address such issues there. However, AT&T believes that spectrum unbundling within the same loop raises significant policy and operational issues. For example, when two carriers share spectrum on a single line, it is not clear which carrier would be responsible for maintenance and repair (both trouble receipt and the cost of trouble resolution). Further, spectrum unbundling appears to deny the LEC providing voice service the opportunity to provide innovative other services to its voice customer because of its restriction to a narrow slice of loop bandwidth. Moreover, a rule specifying that discrete portions of loop bandwidth must be allocated to particular services would create a substantial risk of freezing technological innovation at the current DSL level. Such an approach would also overturn the Commission's prior policies that: (1) UNEs are defined in terms of functionality³³⁷ rather than physical equipment or the types of services that are supported; and (2) a CLEC obtaining a UNE is entitled to all the features and functionality that the UNE is capable of delivering. For these reasons, and others that will be

³³⁷ For example, the loop UNE provides the following functionality: the transmission capability between the network interface device at the customer's premises and the physical termination and cross-connection to either another incumbent LEC UNE or any other technically feasible point of interconnection with the CLEC network where the CLEC gains access to communications that its customer places on that loop. *See supra* Part IV.A.2.

addressed in CC Docket No. 98-147, AT&T believes that the purported benefits of spectrum unbundling are far outweighed by the detrimental effect such a rule could have on innovation and customer relationships.

V. THE COMMISSION SHOULD REINSTATE RULES 315(c)-(f) ON NETWORK ELEMENT COMBINATIONS AND RULES 305(a)(4) AND 311(c) ON SUPERIOR QUALITY ACCESS AND INTERCONNECTION.

In its opening Comments, AT&T demonstrated that the Commission should reinstate Rules 315(c)-(f), which required incumbent LECs, where technically feasible and for appropriate cost-based compensation, to combine their network elements with one another and with CLEC facilities when the CLEC so requests. AT&T also urged the Commission to readopt Rules 305(a)(4) and 311(c), which required incumbent LECs, again where technically feasible and for compensation, to provide superior quality access and interconnection when CLECs so request. AT&T showed that those rules would serve important pro-competitive purposes, and that the reasoning of the Eighth Circuit decision invalidating them has been superseded by the Supreme Court's decision in *Iowa Utilities Board* and by other intervening developments.³³⁸ Several other commenters agree.³³⁹

³³⁸ See AT&T at 136-145.

³³⁹ See, e.g., CompTel at 48; GSA at 12-13; ALTS at 80; Excel at 14; Qwest at 53-55; e.spire at 9-11; NEXTLINK at 41-44; Net2000 at 17-22. Indeed, the California Public Utilities Commission specifically recommends requiring incumbent LECs to combine network elements so as to provide "extended link" capability, or EELs, explaining that there is "no viable competitive alternative." See California Public Utilities Commission, p. 6.

Nothing in the comments of the incumbent LECs offers any serious counterargument. Indeed, those comments, insofar as they address the issue at all, make only two points. Each is insubstantial.

First, the incumbent LECs argue that the Commission should not or cannot reinstate these rules because the Eighth Circuit's decision invalidating them is the "law of the land."³⁴⁰ But the Commission itself has recognized that this is simply not so. As it explained in its recent filing before the Eighth Circuit, the reasoning underlying the prior invalidation of these rules has been called into serious question by the Supreme Court's decision in *Iowa Utilities Board*.³⁴¹ Insofar as the Supreme Court's decision establishes principles at variance with those the Eighth Circuit had relied upon – as it plainly does, *see* AT&T, pp. 138-141 – it is those principles that now control.³⁴²

Second, GTE asserts that there is no need for rules requiring incumbent LECs to combine elements because "CLECs are free to combine ILEC unbundled network elements themselves."³⁴³

³⁴⁰ *See* Ameritech at 11 n.19; *see also* GTE at 84.

³⁴¹ *See Iowa Utils. Bd. v. FCC*, Response of Federal Respondents to Local Exchange Carriers' Motion Regarding Further Proceedings on Remand and Motion for Voluntary Partial Remand, No. 96-3321, 8th Cir., pp. 11-13 (filed March 2, 1999).

³⁴² Indeed, GTE leads with its chin when it relies upon the Eighth Circuit's statement that the Act's nondiscrimination requirement "merely prevents an incumbent LEC from arbitrarily treating some of its competing carriers differently than others." *See* GTE at 85 (quoting *Iowa Utils. Bd. v. FCC*, 120 F.3d at 813). The Supreme Court's reinstatement of Rule 315(b) was premised on the contrary understanding that the Act's nondiscrimination requirements mandate parity between the incumbent LEC's treatment of other carriers and its treatment of itself as well. *See Iowa Utils. Bd.*, 119 S. Ct. at 737-738; *see also First Report and Order* ¶ 312.

³⁴³ *See* GTE at 85.

That is manifestly not the case. As AT&T showed in its Comments, the incumbent LECs, once they secured a ruling from the Eighth Circuit that invalidated Rules 315(c)-(f) on the premise that they would permit CLECs access to combine elements directly, promptly turned around and denied such access.³⁴⁴ In readopting Rules 315(c)-(f), the Commission should therefore make an express finding to that effect.

³⁴⁴ Compare *Iowa Utils. Bd. v. FCC*, 120 F.3d at 813 (“the fact that the incumbent LECs object to this rule indicates to us that they would rather allow entrants access to their networks than have to rebundle the unbundled elements for them”) with AT&T at 141-142 (citing numerous incumbent LEC refusals to grant such access).

CONCLUSION

For the reasons discussed above, AT&T urges the Commission to adopt the recommendations set forth in its Comments and in these Reply Comments.

Respectfully submitted,

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APPENDIX A
(List of Commenters, filed 05/26/99)

Ad Hoc Telecommunications Users Committee ("Ad Hoc")
Allegiance Telecom ("Allegiance")
Ameritech
Association for Local Telecommunications Services ("ALTS")
AT&T Corp. ("AT&T")
Bell Atlantic
BellSouth Corp. ("BellSouth")
Cable & Wireless USA ("C&W")
California Public Utilities Commission and People of State of California ("Cal. PUC")
Centennial Cellular Corp. et al. ("Centennial")
Choice One Communications et al. ("Choice One")
Cincinnati Bell Telephone ("Cincinnati")
Columbia Telecommunications d/b/a aXessa ("Columbia")
Competition Policy Institute ("CPI")
Competitive Telecommunications Association ("CompTel")
Connecticut Dept. of Public Utility Control ("Connecticut DPUC")
CoreComm Ltd. ("CoreComm")
Covad Communications ("Covad")
Cox Communications ("Cox")
e.spire and Intermedia Communications ("e*spire")
Excel Communications ("Excel")
Florida Public Service Commission ("Florida PSC")
Focal Communications ("Focal")
General Services Administration ("GSA")
GTE Service Corp. ("GTE")
Illinois Commerce Commission ("Illinois CC")
Information Technology Industry Council ("ITIC")
Iowa Utilities Board ("Iowa Utils. Bd.")
Joint Consumer Advocates
Kentucky Public Service Commission ("Kentucky PSC")
KMC Telecom ("KMC")
Level 3 Communications ("Level 3")
Low Tech Designs ("Low Tech")
MCI World Com
McLeodUSA Telecommunications Services ("McLeod")
MediaOne Group ("Media One")
Metromedia Fiber Network Services ("Metromedia")
Metro One Telecommunications ("Metro One")
MGC Communications ("MGC")

National Association of Regulatory Utility Commissioners ("NARUC")
Net2000 Communications ("Net2000")
Network Access Solutions
New England Voice & Data
New York State Dept. of Public Service ("New York DPS")
NEXTLINK Communications ("NEXTLINK")
Northpoint Communications ("NorthPoint")
Ohio Public Utilities Commission ("Ohio PUC")
OpTel, Inc. ("Op Tel")
Oregon Public Utility Commission ("Oregon PUC")
Pilgrim Telephone ("Pilgrim")
Prism Communication Services ("Prism")
Qwest Communications Corp. ("Qwest")
RCN Telecom Services ("RCN")
Rhythms NetConnections
Rural Telephone Coalition ("RTC")
SBC Communications ("SBC")
Sprint Corp. ("Sprint")
Strategic Policy Research ("SPR")
Telecommunications Resellers Association ("TRA")
Teligent
Teltrust
Texas Public Utility Commission ("Texas PUC")
United States Telephone Association ("USTA")
U S WEST
Vermont Public Service Board ("Vermont PSB")
Waller Creek Communications ("Waller Creek")
Washington Utilities and Transportation Commission ("Washington UTC")
WinStar Communications ("WinStar")